

**CLAIMS**

We claim:

1. A method of providing to a user programming and online system services from an online system by providing information content from an information signal to the user  
5 while viewing and/or listening to a received programming signal, comprising the steps of:  
receiving the programming signal, the programming signal containing a video or audio program;  
obtaining at least one address associated with an online system information provider;  
10 automatically establishing a communications path with the online system information provider;  
receiving the information signal from the online system information provider;  
presenting the information content to the user;  
wherein the communications path is automatically established with the online  
15 system information provider without user interaction so that the information content is pushed to the user.
2. The method of claim 1, wherein the programming signal is received from a communications link comprising at least one of the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics, and a  
20 private network.

3. The method of claim 1, wherein the programming signal comprises at least one selected from the group consisting of an audio signal, a video signal, a combined audio and video signal, animations, and a sequence of individual frames.
4. The method of claim 1, wherein the programming signal is a previously recorded  
5 program received from a recorded medium.
5. The method of claim 1, wherein the programming signal contains video.
6. The method of claim 4, wherein the recorded media comprises at least one selected from the group consisting of a DVD player, a storage device provided with a computer workstation or set top box, VCR, and a CD ROM device.
- 10 7. The method of claim 1, wherein the programming signal contains an audio program, the audio program provided from one selected from the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics, and a private network.
8. The method of claim 7, wherein the audio program comprises music.
- 15 9. The method of claim 5, wherein the video comprises a live program.
10. The method of claim 5, wherein the video comprises a prerecorded program.
11. The method of claim 7, wherein the audio signal comprises a prerecorded program.
12. The method of claim 7, wherein the audio signal comprises a real time live  
20 program.

13. The method of claim 5, wherein the video comprises an advertisement targeted at the user.
14. The method of claim 5, wherein the video program comprises an advertisement.
15. The method of claim 7, wherein the audio program comprises an advertisement.
- 5 16. The method of claim 1, wherein the programming signal is received from a source selected from the group consisting of a cable headend, and a satellite broadcast operations center.
17. The method of claim 1, wherein the address is embedded in the programming signal.
- 10 18. The method of claim 1, wherein the address is obtained independently from the programming signal.
19. The method of claim 1, wherein the address is received directly from an Internet connection.
20. The method of claim 5, wherein the address is embedded in the video program.
- 15 21. The method of claim 7, wherein the address is embedded in the audio program.
22. The method of claim 18, wherein the address is received in simulcast with the programming signal.
23. The method of claim 1, wherein the programming signal comprises a video and audio signal and the method further comprises the step of displaying the video signal on a
- 20 display device and generating an audible signal from the audio signal via a speaker.

24. The method of claim 1, wherein the received information signal content comprises at least one selected from the group consisting of text, graphics, video, audio and multimedia signal.

25. The method of claim 1, wherein the programming signal and information signal  
5 are received at a receiver station.

26. The method of claim 25, wherein the receiver station comprises at least one selected from the group consisting of a television, digital television, and a personal computer.

27. The method of claim 25, wherein the receiver station comprises an analog or  
10 digital cable box operably connected to a television.

28. The method of claim 25, wherein the receiver station comprises a personal computer operably connected to a television.

29. The method of claim 28, wherein the programming signal is received at the television, and the address and the information signal are received at the personal  
15 computer.

30. The method of claim 25, wherein the address is received at the receiver station prior in time to the receipt of the programming signal and further comprising the step of storing the address.

31. The method of claim 25, wherein the address is stored in cache at a site remote  
20 from the receiver station and further comprising the step of establishing a second communications link with the remote cache for accessing the address.

32. The method of claim 1, wherein the programming signal contains a news program and the information content contains additional information related to the news program.

33. The method of claim 1, wherein the programming signal contains an advertisement and the information content contains additional information related to the advertisement.

34. The method of claim 1, wherein the programming signal contains a sports program and the information content contains additional information related to the sports program.

35. The method of claim 1, wherein the programming signal contains an entertainment program and the information content contains additional information related to the entertainment program.

36. The method of claim 1, wherein the programming signal contains a music video and the information content contains additional information related to the music video.

37. The method of claim 36, wherein the additional information includes at least one selected from the group consisting of biographical information on an artist, concert schedule, and information on buying goods related to the artist.

38. The method of claim 1, wherein the information content contains a query and a link to a Web site for the user to supply an answer.

39. The method of claim 1, wherein the information content contains a query for the user to respond to a poll and a link to a site for the user to supply the response.

40. The method of claim 1, wherein the received information signal contains at least one additional address associated with one or more other online system information providers, further comprising the steps of automatically establishing, upon user command, a communications path with the other online system information provider, and  
5 receiving a second information signal from the other online system information provider.
41. The method of claim 1, wherein the programming signal contains video and the video is streamed from an Internet site.
42. The method of claim 5, further comprising the step of displaying the video program on a display device.
- 10 43. The method of claim 42, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and  
further comprising the step of displaying the information content concurrently with the video program.
44. The method of claim 42, wherein the information content contains at least one  
15 selected from the group consisting of graphics, text and video; and  
further comprising the step of displaying the information content in sync with the video program.
45. The method of claim 42, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and wherein the  
20 information content replaces the video on the display device.

46. The method of claim 42, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and  
further comprising the step of displaying the information content on a second display device.

5 47. The method of claim 1, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and further comprising the step of displaying the information content.

48. The method of claim 7, further comprising the step of playing the audio program.

49. The method of claim 48, wherein the received information content contains one  
10 selected from the group consisting of video, graphics, text, and animation and further comprising the step of displaying the information content concurrently with the playing of the audio program.

50. The method of claim 48, wherein the received information signal contains an additional audio segment and further comprising the step of replacing the audio program  
15 with the additional audio segment associated with the received information signal.

51. The method of claim 1, further comprising the step creating a user profile.

52. The method of claim 51, further comprising the step of selecting the programming signal based at least in part on the user profile.

53. The method of claim 51, wherein the user profile is stored in a storage device at  
20 one of the locations selected from the group consisting of a user station, cable headend, Intranet site, Internet site and a satellite operations center.

54. The method of claim 1, wherein the programming signal contains an advertisement.
55. The method of claim 51, wherein the programming signal contains an advertisement and further comprising the step of selecting the advertisement based at  
5 least in part on the user profile.
56. The method of claim 25, further comprising the steps of creating a user profile and storing the user profile locally to the receiver station.
57. The method of claim 25, further comprising the steps of creating a user profile and storing the user profile at a site remote from the receiver station.
- 10 58. The method of claim 51, wherein the address is selected at least in part based on the user profile.
59. The method of claim 58, wherein the user profile contains at least one selected from the group consisting of user interests, demographics, and click history.
60. The method of claim 51, wherein the received information signal is selected at  
15 least in part based on the user profile.
61. The method of claim 51, wherein the received information signal contains an advertisement and further comprising the step of selecting the advertisement based at least in part on the user profile.
62. The method of claim 1, further comprising the step of sending and receiving  
20 messages from other users by way of a chat dialogue frame interface.
63. The method of claim 62, wherein at least one of the users is an online provider.



64. The method of claim 1, wherein the program signal contains an educational program and the information content contains information related to the educational program.

65. The method of claim 62, wherein the program signal contains an educational program and the users perform a virtual experiment using the chat dialogue frame interface.

66. The method of claim 1, further comprising the step of sending and receiving messages from other users by way of electronic mail.

67. The method of claim 1, wherein the online system information provider comprises one selected from the group consisting of an Internet site, private network, public network, and an Intranet site.

68. The method of claim 1 wherein the programming signal is a television signal.

69. The method of claim 68 wherein the television signal is in an analog format and the address is embedded in the vertical blanking interval of the television signal.

70. The method of claim 68 wherein the television signal is in an analog format and the address is embedded in the horizontal blanking interval of the television signal.

71. The method of claim 1 wherein the programming signal is a digital signal.

72. The method of claim 71 wherein the programming signal and the address are received as a combined MPEG signal.

73. The method of claim 1 wherein the content comprises at least one selected from the group consisting of text, graphics, video, and a multimedia signal.

75. The method of claim 74, wherein the content is displayed on a display device.

76. The method of claim 75, wherein the display device comprises one selected from the group consisting of a television, a digital television and a computer.

77. The method of claim 75, wherein the programming signal contains video and is  
5 displayed on the display device.

78. The method of claim 77, wherein the programming signal and the content are displayed simultaneously in a picture-in-picture arrangement.

79. The method of claim 77, wherein the programming signal and the content are displayed simultaneously in a side-by-side arrangement.

10 80. The method of claim 75, wherein the programming signal contains video and is displayed on a second display device.

81. The method of claim 80, wherein the second display device comprises one selected from the group consisting of a television, a digital television and a computer.

82. The method of claim 1, wherein the communications path comprises at least one  
15 selected from the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics and a private network.

83. A system of providing to a user programming and online system services by providing information content from an information signal to the user while viewing or listening to a received programming signal, comprising:

20 a means for receiving a programming signal, the programming signal containing a video or audio program;

a means for obtaining at least one address associated with an online system information provider;

a means for automatically establishing a communications link with the address indicated online system information provider;

5 a means for receiving the information signal from the online information;  
presenting the information content to the user; and

wherein the communications link is automatically established with the online system information provider without user interaction so that the information content is pushed to the user..

10 84. The system of claim 83, wherein the programming signal is received from a communications link comprising at least one selected from the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics, and a private network.

85. The system of claim 83, wherein the programming signal comprises at least one  
15 selected from the group consisting of an audio signal, a video signal, a combined audio and video signal, animations, and a sequence of individual frames.

86. The system of claim 83, further comprising a storage device, wherein the programming signal is a previously recorded program which is received from the storage device.

87. The system of claim 83, wherein the programming signal is received from a source selected from the group consisting of a cable headend, and a satellite broadcast operations center.

88. The system of claim 83, further comprising a storage device, wherein the programming signal is received from storage device selected from the group consisting of a digital versatile disk, a storage device provided with a computer workstation or set top box, magnetic tape device, and a CD ROM device.

89. The system of claim 83, wherein the programming signal contains a video program, further comprising:

means for displaying the video program.

90. The system of claim 89, wherein the video program is a live program.

91. The system of claim 89, wherein the video program is a prerecorded program.

92. The system of claim 89, wherein the video program contains an advertisement.

93. The system of claim 89, wherein the video program comprises an advertisement targeted to the user.

94. The system of claim 83, wherein the programming signal contains an audio program.

95. The system of claim 94, wherein the audio program is provided from a source selected from the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable fiber optics, and a private network.

96. The system of claim 95, wherein the audio program comprises music.

97. The system of claim 95, wherein the audio signal comprises a prerecorded program.
98. The system of claim 95, wherein the audio signal comprises a real time live program.
- 5 99. The system of claim 95, wherein the audio signal comprises an advertisement.
100. The system of claim 95, wherein the audio signal comprises an advertisement targeted at the user.
101. The system of claim 83, wherein the address is embedded in the programming signal.
- 10 102. The system of claim 83, wherein the address is obtained independently from the programming signal.
103. The system of claim 83, wherein the address is received directly from an Internet connection.
104. The system of claim 89, wherein the address is embedded in the video program.
- 15 105. The system of claim 94, wherein the address is embedded in the audio program.
106. The system of claim 83, wherein the received information signal content contains at least one selected from the group consisting of text, graphics, video, audio and multimedia signal.
107. The system of claim 83, wherein the received information signal contains a video segment, further comprising:
- 20 means for displaying the video segment.

108. The system of claim 83, wherein the received information signal contains an audio segment, further comprising:

an audio player for playing the audio segment.

109. The system of claim 83, further comprising a local cache, wherein the address is stored in local cache.

110. The system of claim 83, further comprising:

a cache at a site remote from the user, wherein the address is stored in the remote cache; and

wherein the establishing means further establishes a second communications link with the remote cache for accessing the address.

111. The system of claim 83, wherein the received information signal contains at least one additional address associated with one or more other online system information providers, further comprising:

a user interface for receiving a user command;

wherein the establishing means, upon receipt of the user command, further establishes a second communications link with the other online system information provider for accessing a second information signal.

112. The system of claim 89, wherein the display means displays the information content concurrently with the video program.

113. The system of claim 89, wherein the display means replaces the video program with the information content.

114. The system of claim 83, wherein the received information signal contains a video segment and the programming signal contains an audio program, further comprising:

an audio player for playing the audio program; and

a display means, wherein the display means displays the video segment

5 concurrently with the playing of the audio program.

115. The system of claim 83, further comprising:

a storage device;

wherein a user profile is stored in the storage device.

116. The system of claim 115, wherein the programming signal is selected at least in

10 part on the user profile.

117. The system of claim 115, wherein the storage device is located at one of the locations selected from the group consisting of a user station, cable headend, Intranet site. Internet site and a satellite operations center.

118. The system of claim 115, wherein the programming signal contains a

15 predetermined advertisement and wherein selection of the predetermined advertisement is based at least in part on the user profile.

119. The system of claim 83, further comprising:

a storage device, located at a site remote from the user;

wherein a user profile is stored in the storage device.

20 120. The system of claim 115, wherein the address is selected at least in part based on the user profile.

121. The system of claim 115, wherein the received information signal is selected at least in part based on the user profile.

122. The system of claim 115, wherein the received information signal contains an advertisement and wherein the advertisement is selected at least in part on the user profile.

123. The system of claim 115, wherein the programming signal contains an audio signal and wherein the audio signal is selected at least in part on the user profile.

124. The system of claim 115, wherein the programming signal contains a graphics segment and wherein the graphics segment is selected at least in part on the user profile.

125. The system of claim 83, wherein the system further comprises a chat dialogue frame interface, the chat dialogue frame interface allowing the user to send and receive messages from other users.

126. The system of claim 125, wherein at least one of the users is an online provider.

127. The system of claim 83, further comprising an electronic mail interface, the electronic mail interface allowing the user to send and receive messages from other users.

128. The system of claim 83, wherein the online system information provider comprises one selected from the group consisting of an Internet site, private network, public network, and an Intranet site.

129. The system of claim 83, wherein the programming signal is a television signal.



130. The system of claim 129, wherein the television signal is in an analog format and the address is embedded in the vertical blanking interval of the television signal.
131. The system of claim 129, wherein the television signal is in an analog format and the address is embedded in the horizontal blanking interval of the television signal.
- 5 132. The system of claim 83, wherein the programming signal is a digital signal.
133. The system of claim 132, wherein the programming signal and the address are received as a combined MPEG signal.
134. The system of claim 83, wherein the content comprises at least one selected from the group consisting of text, graphics, video, and a multimedia signal.
- 10 135. The system of claim 134, further comprising a display device, wherein the content is displayed on a display device.
136. The system of claim 135, wherein the display device comprises one selected from the group consisting of a television, a digital television and a computer.
137. The system of claim 135, wherein the programming signal contains video and is  
15 displayed on the display device.
138. The system of claim 137, wherein the programming signal and the content are displayed simultaneously in a picture-in-picture arrangement.
139. The system of claim 137, wherein the programming signal and the content are displayed simultaneously in a side-by-side arrangement.
- 20 140. The system of claim 135, further comprising a second display device, wherein the programming signal contains video and is displayed on a second display device.

141. The system of claim 140, wherein the second display device comprises one selected from the group consisting of a television, a digital television and a computer.

142. The system of claim 83, wherein the communications path comprises at least one selected from the group consisting of the Internet, Intranet, broadcast over radio

5 frequencies, satellite broadcast, cable, fiber optics and a private network.

143. The system of claim 83, wherein the programming signal contains a news program and the information content contains additional information related to the news program.

144. The system of claim 83, wherein the programming signal contains an  
10 advertisement and the information content contains additional information related to the advertisement.

145. The system of claim 83, wherein the programming signal contains a sports program and the information content contains additional information related to the sports program.

15 146. The system of claim 83, wherein the programming signal contains an entertainment program and the information content contains additional information related to the entertainment program.

147. The system of claim 83, wherein the programming signal contains an music video and the information content contains additional information related to the music video.

148. The system of claim 147, wherein the additional information includes at least one selected from the group consisting of biographical information on an artist, concert schedule, and information on buying goods related to the artist.

149. The system of claim 83, wherein the information content contains a query and a  
5 link to a Web site for the user to supply an answer.

150. The system of claim 83, wherein the information content contains a query for the user to respond to a poll and a link to a site for the user to supply the response.

151. The system of claim 83, wherein the programming signal contains video and the video is streamed from an Internet site.

10 152. A method of providing to a user programming and Internet services by providing information content from an information signal to the user while viewing and/or listening to a received programming signal, comprising the steps of:

receiving the programming signal, the programming signal containing a video or audio program;

15 obtaining at least one address associated with an Internet site;

automatically establishing a communications path with the Internet site;

receiving the information signal from the Internet site;

presenting the information content to the user;

wherein the communications path is automatically established with the Internet  
20 site without user interaction so that the information content is pushed to the user.

153. The method of claim 152, wherein the programming signal is received from a communications link comprising at least one of the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics, and a private network.

5 154. The method of claim 152, wherein the programming signal comprises at least one selected from the group consisting of an audio signal, a video signal, a combined audio and video signal, animations, and a sequence of individual frames.

155. The method of claim 152, wherein the programming signal is a previously recorded program received from a recorded medium.

10 156. The method of claim 152, wherein the programming signal contains video.

157. The method of claim 155, wherein the recorded media comprises at least one selected from the group consisting of a DVD player, a storage device provided with a computer workstation or set top box, VCR, and a CD ROM device.

158. The method of claim 152, wherein the programming signal contains an audio  
15 program, the audio program provided from one selected from the group consisting of the Internet, Intranet, broadcast over radio frequencies, satellite broadcast, cable, fiber optics, and a private network.

159. The method of claim 158, wherein the audio program comprises music.

160. The method of claim 156, wherein the video comprises a live program.

20 161. The method of claim 156, wherein the video comprises a prerecorded program.

162. The method of claim 158, wherein the audio signal comprises a prerecorded program.
163. The method of claim 158, wherein the audio signal comprises a real time live program.
- 5 164. The method of claim 156, wherein the video comprises an advertisement targeted at the user.
165. The method of claim 156, wherein the video program comprises an advertisement.
166. The method of claim 158, wherein the audio program comprises an  
10 advertisement.
167. The method of claim 152, wherein the programming signal is received from a source selected from the group consisting of a cable headend, and a satellite broadcast operations center.
168. The method of claim 152, wherein the address is embedded in the programming  
15 signal.
169. The method of claim 152, wherein the address is obtained independently from the programming signal.
170. The method of claim 152, wherein the address is received directly from an Internet connection.
- 20 171. The method of claim 156, wherein the address is embedded in the video program.
172. The method of claim 158, wherein the address is embedded in the audio program.

173. The method of claim 169, wherein the address is received in simulcast with the programming signal.

174. The method of claim 152, wherein the programming signal comprises a video and audio signal and the method further comprises the step of displaying the video signal on a display device and generating an audible signal from the audio signal via a speaker.

175. The method of claim 152, wherein the received information signal content comprises at least one selected from the group consisting of text, graphics, video, audio and multimedia signal.

176. The method of claim 152, wherein the programming signal and information signal are received at a receiver station.

177. The method of claim 176, wherein the receiver station comprises at least one selected from the group consisting of a television, digital television, and a personal computer.

178. The method of claim 176, wherein the receiver station comprises an analog or digital cable box operably connected to a television.

179. The method of claim 176, wherein the receiver station comprises a personal computer operably connected to a television.

180. The method of claim 179, wherein the programming signal is received at the television, and the address and the information signal are received at the personal computer.

181. The method of claim 176, wherein the address is received at the receiver station prior in time to the receipt of the programming signal and further comprising the step of storing the address.

182. The method of claim 176, wherein the address is stored in cache at a site remote  
5 from the receiver station and further comprising the step of establishing a second communications link with the remote cache for accessing the address.

183. The method of claim 152, wherein the programming signal contains a news program and the information content contains additional information related to the news program.

10 184. The method of claim 152, wherein the programming signal contains an advertisement and the information content contains additional information related to the advertisement.

185. The method of claim 152, wherein the programming signal contains a sports program and the information content contains additional information related to the sports  
15 program.

186. The method of claim 152, wherein the programming signal contains an entertainment program and the information content contains additional information related to the entertainment program.

187. The method of claim 152, wherein the programming signal contains an music  
20 video and the information content contains additional information related to the music video.

188. The method of claim 187, wherein the additional information includes at least one selected from the group consisting of biographical information on an artist, concert schedule, and information on buying goods related to the artist.

189. The method of claim 152, wherein the information content contains a query and a  
5 link to a Web site for the user to supply an answer.

190. The method of claim 152, wherein the information content contains a query for the user to respond to a poll and a link to a site for the user to supply the response.

191. The method of claim 152, wherein the received information signal contains at least one additional address associated with one or more other online system information  
10 providers, further comprising the steps of automatically establishing, upon user command, a communications path with the other online system information provider, and receiving a second information signal from the other online system information provider.

192. The method of claim 152, wherein the programming signal contains video and the video is streamed from an Internet site.

193. The method of claim 156, further comprising the step of displaying the video  
15 program on a display device.

194. The method of claim 193, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and

further comprising the step of displaying the information content concurrently  
20 with the video program.



195. The method of claim 193, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and

further comprising the step of displaying the information content in sync with the video program.

5 196. The method of claim 193, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and wherein the information content replaces the video on the display device.

197. The method of claim 193, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and

10 further comprising the step of displaying the information content on a second display device.

198. The method of claim 152, wherein the information content contains at least one selected from the group consisting of graphics, text and video; and further comprising the step of displaying the information content.

15 199. The method of claim 158, further comprising the step of playing the audio program.

200. The method of claim 199, wherein the received information content contains one selected from the group consisting of video, graphics, text, and animation and further comprising the step of displaying the information content concurrently with the playing  
20 of the audio program.

201. The method of claim 199, wherein the received information signal contains an additional audio segment and further comprising the step of replacing the audio program with the additional audio segment associated with the received information signal.

202. The method of claim 152, further comprising the step creating a user profile.

5 203. The method of claim 202, further comprising the step of selecting the programming signal based at least in part on the user profile.

204. The method of claim 202, wherein the user profile is stored in a storage device at one of the locations selected from the group consisting of a user station, cable headend, Intranet site, Internet site and a satellite operations center.

10 205. The method of claim 152, wherein the programming signal contains an advertisement.

206. The method of claim 202, wherein the programming signal contains an advertisement and further comprising the step of selecting the advertisement based at least in part on the user profile.

15 207. The method of claim 176, further comprising the steps of creating a user profile and storing the user profile locally to the receiver station.

208. The method of claim 176, further comprising the steps of creating a user profile and storing the user profile at a site remote from the receiver station.

20 209. The method of claim 202, wherein the address is selected at least in part based on the user profile.

210. The method of claim 209, wherein the user profile contains at least one selected from the group consisting of user interests, demographics, and click history.
211. The method of claim 202, wherein the received information signal is selected at least in part based on the user profile.
- 5 212. The method of claim 202, wherein the received information signal contains an advertisement and further comprising the step of selecting the advertisement based at least in part on the user profile.
213. The method of claim 152, further comprising the step of sending and receiving messages from other users by way of a chat dialogue frame interface.
- 10 214. The method of claim 213, wherein at least one of the users is an online provider.
215. The method of claim 152, wherein the program signal contains an educational program and the information content contains information related to the educational program.
216. The method of claim 62, wherein the program signal contains an educational  
15 program and the users perform a virtual experiment using the chat dialogue frame interface.
217. The method of claim 152, further comprising the step of sending and receiving messages from other users by way of electronic mail.
218. The method of claim 152, wherein the programming signal is a television signal.
- 20 219. The method of claim 218 wherein the television signal is in an analog format and the address is embedded in the vertical blanking interval of the television signal.

220. The method of claim 218 wherein the television signal is in an analog format and the address is embedded in the horizontal blanking interval of the television signal.
221. The method of claim 152 wherein the programming signal is a digital signal.
222. The method of claim 221 wherein the programming signal and the address are  
5 received as a combined MPEG signal.
223. The method of claim 152 wherein the content comprises at least one selected from the group consisting of text, graphics, video, and a multimedia signal.
224. The method of claim 223, wherein the content is displayed on a display device.
225. The method of claim 224, wherein the display device comprises one selected from  
10 the group consisting of a television, a digital television and a computer.
226. The method of claim 224, wherein the programming signal contains video and is displayed on the display device.
227. The method of claim 226, wherein the programming signal and the content are displayed simultaneously in a picture-in-picture arrangement.
- 15 228. The method of claim 226, wherein the programming signal and the content are displayed simultaneously in a side-by-side arrangement.
229. The method of claim 224, wherein the programming signal contains video and is displayed on a second display device.
230. The method of claim 229, wherein the second display device comprises one  
20 selected from the group consisting of a television, a digital television and a computer.

231. The method of claim 152, wherein the communications path comprises at least one selected from the group consisting of the PSTN, broadcast over radio frequencies, satellite broadcast, cable, fiber optics and a private network.